

1644

DATE: 06/20/2001 RAW SEQUENCE LISTING TIME: 14:50:35 PATENT APPLICATION: US/09/506,978

Input Set : A:\Epfl-1.app

Output Set: N:\CRF3\06202001\I506978.raw

ENTERED

```
3 <110> APPLICANT: Spertini, Francois
    5 <120> TITLE OF INVENTION: NOVEL BEE VENOM POLYPEPTIDES AND METHODS OF USE THEREOF
    7 <130> FILE REFERENCE: 18519-001
    9 <140> CURRENT APPLICATION NUMBER: 09/506,978
   10 <141> CURRENT FILING DATE: 2000-02-18
   12 <160> NUMBER OF SEQ ID NOS: 5
   14 <170> SOFTWARE: PatentIn Ver. 2.0
   16 <210> SEQ ID NO: 1
   17 <211> LENGTH: 67
   18 <212> TYPE: PRT
   19 <213> ORGANISM: Apis mellifera
    21 <400> SEQUENCE: 1
   22 Gly Gly Phe Gly Gly Leu Gly Gly Arg Gly Lys Cys Pro Ser Asn Glu
                                            10
    23 1
   25 Ile Phe Ser Arg Cys Asp Gly Arg Cys Gln Arg Phe Cys Pro Asn Val
                                        25
                   20
    28 Val Pro Lys Pro Leu Cys Ile Lys Ile Cys Ala Pro Gly Cys Val Cys
    31 Arg Leu Gly Tyr Leu Arg Asn Lys Lys Val Cys Val Pro Arg Ser
                                55
    32 50
    34 Lys Cys Gly
    35 65
    38 <210> SEQ ID NO: 2
    39 <211> LENGTH: 69
    40 <212> TYPE: PRT
    41 <213> ORGANISM: Apis mellifera
    43 <220> FEATURE:
    44 <223> OTHER INFORMATION: Where XX at position 68 and 69 is either PL or LP.
    46 <400> SEQUENCE: 2
    47 Gly Gly Phe Gly Gly Leu Gly Gly Arg Gly Lys Cys Pro Ser Asn Glu
    48 1
    50 Ile Phe Ser Arg Cys Asp Gly Arg Cys Gln Arg Phe Cys Pro Asn Val
                                        25
                    20
    53 Val Pro Lys Pro Leu Cys Ile Lys Ile Cys Ala Pro Gly Cys Val Cys
    56 Arg Leu Gly Tyr Leu Arg Asn Lys Lys Lys Val Cys Val Pro Arg Ser
(v) 59 Lys Cys Gly Xaa Xaa
    60 65
     63 <210> SEQ ID NO: 3
     64 <211> LENGTH: 71
     65 <212> TYPE: PRT
     66 <213> ORGANISM: Apis mellifera
     68 <400> SEQUENCE: 3
     69 Phe Gly Gly Phe Gly Gly Phe Gly Gly Leu Gly Gly Arg Gly Lys Cys
     72 Pro Ser Asn Glu Ile Phe Ser Arg Cys Asp Gly Arg Cys Gln Arg Phe
```

DATE: 06/20/2001

RAW SEQUENCE LISTING TIME: 14:50:35 PATENT APPLICATION: US/09/506,978 Input Set : A:\Epfl-1.app Output Set: N:\CRF3\06202001\I506978.raw 25 75 Cys Pro Asn Val Val Pro Lys Pro Leu Cys Ile Lys Ile Cys Ala Pro 20 40 78 Gly Cys Val Cys Arg Leu Gly Tyr Leu Arg Asn Lys Lys Lys Val Cys 76 50 81 Val Pro Arg Ser Lys Cys Gly 82 65 85 <210> SEQ ID NO: 4 86 <211> LENGTH: 73 87 <212> TYPE: PRT 88 <213> ORGANISM: Apis mellifera 91 <223> OTHER INFORMATION: Where XX at position 72 and 73 is either PL or LP. 94 Phe Gly Gly Phe Gly Gly Dhe Gly Leu Gly Gly Arg Gly Lys Cys 93 <400> SEQUENCE: 4 97 Pro Ser Asn Glu Ile Phe Ser Arg Cys Asp Gly Arg Cys Gln Arg Phe 25 100 Cys Pro Asn Val Val Pro Lys Pro Leu Cys Ile Lys Ile Cys Ala Pro 40 103 Gly Cys Val Cys Arg Leu Gly Tyr Leu Arg Asn Lys Lys Lys Val Cys 55 50 ∕> 106 Val Pro Arg Ser Lys Cys Gly Xaa Xaa 70 107 65 110 <210> SEQ ID NO: 5 111 <211> LENGTH: 35 112 <212> TYPE: PRT 113 <213> ORGANISM: Artificial Sequence 116 <223> OTHER INFORMATION: Description of Artificial Sequence: CYSTEINE SPACING MOTIF 117 120 <223> OTHER INFORMATION: Where any X can be any amino acid.

W--> 123 Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Cys Xaa Xaa

>126 Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Cys Xaa

5

122 <400> SEQUENCE: 5

124 1

130

W--> 129 Xaa Xaa Cys

八 127

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/506,978

DATE: 06/20/2001 TIME: 14:50:36

Input Set : A:\Epfl-1.app

Output Set: N:\CRF3\06202001\I506978.raw

L:59 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:2 L:59 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:2 L:59 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 L:106 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4 L:106 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4 L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:123 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:5 L:123 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:5 L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 L:126 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:5 L:126 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:5 L:126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 L:129 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:5 L:129 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:5 L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5